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PATENT APPLICATION

FOR NATIONAL PHASE SUBMISSION

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CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. (**Currently Amended**) A method for producing electrical contacting of a piezoelectric actuator ~~(1)~~ and for polarizing the piezoelectric actuator ~~(1)~~, **the method comprising:**

**providing** ~~**the**~~ **an** actuator ~~(1)~~ having at least one piezoceramic layer ~~(3)~~ which has two spaced electric contacts ~~(4, 8, 9)~~,

**soldering** electric conductor**s** ~~(5, 10, 11) being soldered~~ to the electric contacts ~~(4, 8, 9)~~,

**heating** the piezoelectric actuator ~~(1) being heated~~ up to a soldering temperature during the soldering process, ~~characterized in that~~ **wherein** during the soldering process a polarizing voltage is applied to the conductor**s** ~~(5, 10, 11)~~ and the piezoceramic layer ~~(3)~~ is polarized.

2. (**Currently Amended**) ~~The~~ **A** method ~~as claimed in~~**according to** claim 1, ~~characterized in that~~ **wherein** a solder material ~~(13)~~ is used whose soldering temperature is above the Curie temperature of the piezoceramic layer ~~(3)~~.

3. (**Currently Amended**) **A method according to claim 1, wherein** ~~**The method as claimed in claim 1 or 2, characterized in that**~~ the polarizing voltage is also applied during a cooling process, and ~~**that**~~ the voltage is limited to a maximum value during cooling of the actuator.

4. (**Currently Amended**) **A method according to claim 1, wherein** ~~**The method as claimed in one of the claims 1 to 3, characterized in that**~~ the polarizing voltage is applied during a heating process before a maximum temperature is reached, and ~~**that**~~ the current is limited to a maximum value during heating of the actuator~~ (1)~~.

5. (**Currently Amended**) **A method according to claim 1, wherein** ~~**The method as claimed in one of the claims 1 to 4, characterized in that**~~ the voltage present during polarization is recorded and evaluated in order to assess the polarization and/or the actuator~~ (1)~~.

6. (**Currently Amended**) **A method according to claim 1, wherein** ~~**The method as claimed in one of the claims 1 to 5, characterized in that**~~ the current flowing during polarization is recorded and evaluated in order to assess the polarization and/or the actuator~~ (1)~~.

7. (**Currently Amended**) A method according to claim 1, wherein ~~The method as claimed in one of the claims 1 to 6, characterized in that~~ the conductors ~~(10, 11)~~ are pressed onto soldering surfaces of the contacts ~~(8, 9)~~ via heating blocks ~~(15)~~, and ~~that~~ wherein the heating blocks ~~(15)~~ at least partially heat up the actuator ~~(1)~~.

8. (**Currently Amended**) A method according to claim 1, wherein ~~The method as claimed in one of the claims 1 to 7, characterized in that~~ a plurality of actuators ~~(1)~~ are soldered to conductors ~~(10, 11)~~ and polarized simultaneously.

9. (**Currently Amended**) A method according to claim 8, wherein ~~The method as claimed in claim 8, characterized in that~~ the conductors ~~(10, 11)~~ of a contact ~~(8, 9)~~ are used monolithically for a plurality of actuators ~~(1)~~ during soldering and polarization, and ~~that~~ wherein after soldering and polarization the conductors ~~(10, 11)~~ are divided into individual conductor pieces for each actuator ~~(1)~~.

10. (**Currently Amended**) A method according to claim 9, wherein~~The method as claimed in claim 9, characterized in that~~ the conductors ~~(10, 11)~~ are connected to contact pins ~~(6, 7)~~ prior to soldering and polarization.

11. (**Currently Amended**) A method according to claim 1, wherein ~~The method as claimed in one of the claims 1 to 10, characterized in that~~ the actuator ~~(1)~~ is heated up to above the Curie temperature of the piezoceramic layer ~~(3)~~ during the soldering process.

12. (**NEW**) A method for producing electrical contacting of a piezoelectric actuator and for polarizing the piezoelectric actuator, the method comprising:

providing an actuator comprising a piezoceramic layer with two spaced electric contacts,

heating the piezoelectric actuator up to a soldering temperature during the soldering process for soldering electric conductors to the electric contacts, wherein during the heating process a polarizing voltage is applied to the conductors.

13. (**NEW**) A method according to claim 12, wherein a solder material is used whose soldering temperature is above the Curie temperature of the piezoceramic layer.

14. (**NEW**) A method according to claim 12, wherein the polarizing voltage is also applied during a cooling process, and the voltage is limited to a maximum value during cooling of the actuator.

15. (**NEW**) A method according to claim 12, wherein the polarizing voltage is applied during a heating process before a maximum temperature is reached, and the current is limited to a maximum value during heating of the actuator.

16. (**NEW**) A method according to claim 12, wherein the voltage present during polarization is recorded and evaluated in order to assess the polarization and/or the actuator.

17. (**NEW**) A method according to claim 12, wherein the current flowing during polarization is recorded and evaluated in order to assess the polarization and/or the actuator.

18. (**NEW**) A method according to claim 12, wherein the conductors are pressed onto soldering surfaces of the contacts via heating blocks, and the heating blocks at least partially heat up the actuator.

19. (**NEW**) A method according to claim 12, wherein a plurality of actuators are soldered to conductors and polarized simultaneously.

20. (**NEW**) A method for producing electrical contacting of a piezoelectric actuator and for polarizing the piezoelectric actuator, the method comprising:

providing an actuator comprising a piezoceramic layer with two spaced electric contacts,

heating the piezoelectric actuator up to a soldering temperature during the soldering process for soldering electric conductors to the electric contacts, wherein during the heating process a polarizing voltage is applied to the conductors, and

applying the polarizing voltage also during a cooling process, and limiting the voltage to a maximum value during cooling of the actuator.